

*Remarkable Appearances during the total Eclipse of the Moon
on March 19, 1848.*

Extract of a Letter from Mr. Forster, Bruges.

“I wish to call your attention to the fact which I have clearly ascertained, that during the whole of the late lunar eclipse of March 19, the shaded surface presented a luminosity quite unusual, probably about three times the intensity of the mean illumination of an eclipsed lunar disc. The light was of a deep red colour. During the totality of the eclipse, the light and dark places on the face of the moon could be almost as well made out as in an ordinary, dull moonlight night, and the deep red colour, when the sky was clearest, was very remarkable from the contrasted whiteness of the stars. My observations were made with different telescopes, but all presented the same appearance, and the remarkable luminosity struck every one. The British consul of Ghent, *who did not know that there was an eclipse*, wrote to me for an explanation of the blood-red colour of the moon at 9 o'clock.

“The sky was of unusual brilliancy, as often occurs between showers; there was a bright aurora in the north, and a most magnificent meteor descended obliquely towards the north-west horizon about the time of the central eclipse. The western margin of the disc presented a rough, uneven appearance at this time. What would be the effect on the dark surface of the moon of extensive aurora borealis on our earth?”

Mr. Walkey, who observed the eclipse at Clyst-St. Lawrence, near Collumpton, says the appearances were as usual till 20 minutes to 9. “At that period, and for the space of the next hour, instead of an eclipse, or the umbra of the earth being the cause of the *total* obscurity of the moon, the whole phase of that body became very quickly and *most beautifully illuminated*, and assumed the appearance of the glowing heat of fire from the furnace, rather tinged with a deep red. The above description I gave to the editor of one of the Exeter papers, and some one has attempted to solve the peculiarity of the appearance by speaking of the umbra and penumbra, which might have been the cause of it. But such a solution has nothing to do with the appearance, the whole disk of the moon being as perfect *with light* as if there had been *no eclipse whatever*.

“Having spoken of this appearance, I was informed by one or two individuals that they had seen, between twenty minutes to nine and twenty minutes to ten, a very luminous appearance of the aurora borealis. Now, it strikes me that the light reflected from this northern effulgence might have caused the *luminous appearance* of the moon in this part of the country at the time when it was under the perfect umbra of the earth in other portions of England.

“Many more than threescore years have passed with myself,

and during that period I have several times beheld an eclipse of the moon, but never before did my eyes behold the moon positively giving *good* light from its disk during a total eclipse. The phases of the moon perfectly corresponded with the authorised diagram up to the period of 8^h 40^m and after 9^h 40^m to the end of the eclipse."

Occultations of Fixed Stars observed by Mr. Rümker, Hamburg.

	B.A.C.		Hamburg M.T.	
^{1847.}			^h ^m ^s	
Feb. 25	2486	68 Gemin. κ	10 27 55.3	Immersion
March 22	1692	115 Tauri	7 22 12.0	—
May 28	5112	35 Libræ ζ^4	10 2 38.8	—
June 22	4521	76 Virginis	8 57 54.6	—
Oct. 26	1526	Tauri	9 25 51.0	Emersion
^{1848.}				
Jan. 26	1420	87 Tauri α	5 16 20.8	} —
By M. G. Rümker			21.5	} —

(The nomenclature of the stars has been altered to make it agree with that of the British Association Catalogue.)

Occultations observed at Poona, by W. S. Jacob, Esq.

Lat. 18° 31' 36", N.; Approx. Long. 4^h 55^m 42^s E.

^{1847.}

Dec. 13. Occultation of θ *Aquarii*, Poona Sidereal Time.

Immer. 1^h 38^m 11^s.5 instantaneous; Emer. 2^h 45^m 37^s.0 instantaneous.

Dec. 16. Occultation of *Saturn*, Poona Sideral Time.

Immer. 3^h 40^m 7^s.2 *i.e.* total disappearance; Emer. 4^h 51^m 35^s.5

The planet was not visible at emersion until it was about 2" separated from the moon's limb, or about 4^s after true emersion: 4^s must, therefore, be subtracted from the emersion stated. Planet very dim.

Extract of a Letter from Mr. Maclear. (Cape of Good Hope.)*

"I have observed all the stars which Professor Mädler wished me to observe except one which is now coming into visibility. The reductions are proceeding.

"I have got the 46-inch achromatic on the polar axis, and am proceeding with the adjustments. . . . The dome may be turned with the little finger. There is a little too much side-play, for our violent winds keep it in constant oscillation; but this can easily be checked, and on the whole I am very well satisfied. The practical knowledge I have acquired will, I trust, be useful when the large equatoreal (which is daily expected) arrives. . . .

"Observations have been commenced, or rather resumed, of the

* See the last *Annual Report*, p. 87.